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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,682	12/05/2003	Ezzeddine Hilal	S1022.81108US00	3164
23628 7590 09/06/2007 WOLF GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206			EXAMINER TAKAOKA, DEAN O	
			ART UNIT 2817	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/729,682

Applicant(s)

HILAL ET AL.

Examiner

Dean O. Takaoka

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 16-19 and 21 is/are allowed.
- 6) ☒ Claim(s) 8, 14, 15 and 22 is/are rejected.
- 7) ☒ Claim(s) 9-13, 20 and 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8, 14, 15 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamata et al. (US 6,683,512).

8. Nakamata et al. (best shown in Fig. 9) shows a distributed coupler (COP10), comprising: a first conductive line (STLD2) that carries a signal between a first terminal and a second terminal of the first conductive line to deliver the signal to an antenna (Ant); a first capacitor (CD15) having a first capacitor terminal coupled to the first terminal of the first conductive line and a second capacitor terminal coupled to the second terminal of the first conductive line; and a second conductive line (STLD20) comprising a third terminal and a fourth terminal, the second conductive line being coupled to the first conductive line such that the third terminal provides a first coupled signal that is a function of a magnitude of the signal flowing in a first direction on the first conductive line, and a fourth terminal that provides a second coupled signal that is a function of a magnitude of the signal flowing in a second direction on the first conductive line (inherent by terminating resistor and reverse signal to DCS monitor).

14. The distributed coupler of claim 8, wherein a central frequency of the directional distributed coupler is between a few tens of MHz and a few tens of GHz (where the couplers are used for DCS or GSM).

15. The distributed coupler of claim 8, wherein the second terminal is connected to the antenna (where the limitation is broad and does not preclude an indirect connection thus where STDL2 connects to Ant).

22. A distributed coupler, comprising: a first conductive line (STLD2) that carries a signal between two terminals of the first conductive line to deliver the signal to an antenna (Ant); a second conductive line (STLD20) having two terminals comprising a third terminal and a fourth terminal, the second conductive line being coupled to the first conductive line such that the third terminal provides a first coupled signal that is a function of a magnitude of the signal flowing in a first direction on the first conductive line, and a fourth terminal that provides a second coupled signal that is a function of a magnitude of the signal flowing in a second direction on the first conductive line (termination resistor discussed in the reasons for rejection of claim 1 above); and a first capacitor (CD15) coupled, via different terminals of the first capacitor, respectively, to the two terminals of the first conductive line or the two terminals of the second conductive line (coupled to the first conductive line STLD2).

***Allowable Subject Matter***

Claims 1 – 7, 16 – 19 and 21 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record and in particular Nakamura does not teach or suggest

Art Unit: 2817

the limitation of the claims nor provides motivation for combination with additional prior art where the directional coupler of Nakamura such as COP10 comprising a terminated end would suggest failure if combined with a second capacitor coupled to first and second terminals of the second conductive line.

Claims 9 – 13, 20 and 23 – 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean O. Takaoka whose telephone number is (571) 272-1772. The examiner can normally be reached on 8:30a - 5:00p Mon - Fri.

Art Unit: 2817

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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August 30, 2007